parallax or proper motions, and he has also published a list of ten suspected variables. The latter are all in *Orion,* which, besides the *Pleiades,* is the only region thus far examined. Incidentally, some novel effects may be obtained with the stereo-comparator. *Jupiter,* for example, may be made to appear much nearer than the fixed stars in the same field, with some of his satellites a little in front and some a little behind *Jupiter* himself.

OBSERVATIONS OF VARIABLE STARS.

By Rose O'Halloran.

The following estimates were made under favorable conditions with a four-inch lens, and may be of interest, though the exact dates of maxima and minima were sometimes unavoidably missed on account of clouds or the interference of high buildings.

S Ursæ Majoris.

A maximum of this long-known variable was predicted for April 18, 1901, but seems to have been a few days later.

1901. April 4. Equal to *g* of 9th mag.
April 8. Ditto.
April 16. Ditto.
April 18. About 8.7 mag.
April 25. Midway between *g* and *d* of 8th mag.

The comparison-stars used are those lettered on the Harvard charts.

V Coronæ.

In his third catalogue, Professor Chandler alludes to the phases of this variable near its maximum, when a magnitude of from 7.2 to 7.7 is usually attained. A maximum was predicted for April 3, 1901, but observations were not obtained until the following dates:—

1901. April 8. Of 9th mag.
April 16. Of 10th mag.
April 18. Ditto.
April 21. Ditto.
April 23. Ditto.
April 25. Dimmer than 10th mag

Its period being 356 days, a maximum was due about March 26th of this year; but on that date it was only of 10th magnitude, or very slightly brighter than the star 5′ south. On March 29th a similar estimate was obtained.

S Tauri.

The maximum of this variable, predicted for January 31st, was observed as follows:—

1901. Dec. 10, 15, 19, 30. } Invisible.
1902. Jan. 2, 4. }
Jan. 7, 10. Of 12th mag.
Jan. 26, 28, 31. } Brighter than the two adjacent stars, and probably of 10th mag.
Feb. 2. }

R Tauri.

The minimum was predicted for December 28, 1901.

1901. Dec. 10, 15, 19, 30. Invisible.
1902. Jan. 2. A star of 12th mag., in the place of the variable, is discernible.
Jan. 4, 7, 10. } Ditto.
Feb. 2. }

W Aurigæ.

1901. Dec. 10, 12, 15, 18, 30. } Brighter than the two stars of 11.5 mag., with which it forms a triangle.
1902. Jan. 2. }
Jan. 4, 6, 7, 12, 17. Of 11th mag.
Jan. 25, 26, 31. Of nearly 10th mag.

The maximum predicted for March 15th in the *Companion to the Observatory* was unavoidably missed, but no doubt was seen elsewhere.

V Orionis.

Though this orb sometimes attains a magnitude of 8.4, the brightness was probably much less on the 18th of last January, the date of the predicted maximum.

1902. Jan. 4, 6, 7, 8, 10, 12, 15, 16, 19, 26, 27. Of 10.5 mag.
Jan. 28, 29. Of 11th mag.
Jan. 31. } Of 10.5 mag.
Feb. 2. }

The star south preceding, to which attention is called in *Popular Astronomy* for January, 1895, page 217, was of about 12th magnitude on the above dates.

W Lyræ.

This variable seems to have attained its maximum luster some weeks before the 9th of March, for which it was predicted in the *Companion to the Observatory.*

1902. Jan. 11. About half a mag. brighter than *n*, which is 8.1 mag.
Jan. 20. Equal to *n*; brighter than *a* of 8.6 mag.
Jan. 27. Ditto. Morning very clear. *W* seems yellowish in color.
Feb. 12. Rather brighter than *n* — what might be classed as two tenths. Distinctly brighter than *a*.
Feb. 22. Equal to *n*.
Mar. 13. Dimmer than *a*, but brighter than *g* of 10th mag., and equal to *p* of 9.4 mag.

R Ursæ Majoris.

The maxima of this star vary from 6 to 8.2 magnitude. The recent maximum was due on February 8th.

1902. Jan. 31. Equal to *h*, but not to *g*, which seems slightly brighter. Both comparison-stars are classed as of 8th mag.
Feb. 2. Ditto.
Mar. 12. Ditto.
Mar. 14. Decreased to *n* of 9th mag.
Mar. 24. It is of about 10.3 mag.

L^2 Puppis.

The maximum of this star was due February 28th.

1902. Jan. 31. Brighter than 4th mag., as compared with *Sigma Puppis* of 3.4 and L^1 of 5th mag.
Feb. 12. } Ditto.
Mar. 2, 9. }
Mar. 14. Slightly brighter than *b Puppis*. Classed as of 4.8 mag

SAN FRANCISCO, March 31, 1902.

KAPTEYN'S CONTRIBUTIONS TO OUR KNOWLEDGE OF THE STARS.

BY J. D. GALLOWAY.

In commenting on the award of the gold medal of the Royal Astronomical Society to Professor J. C. KAPTEYN for his work in connection with the Cape Photographic *Durchmusterung* and his researches on stellar distribution and parallax, Dr. GLAISHER, the president of the society, gave a brief history of